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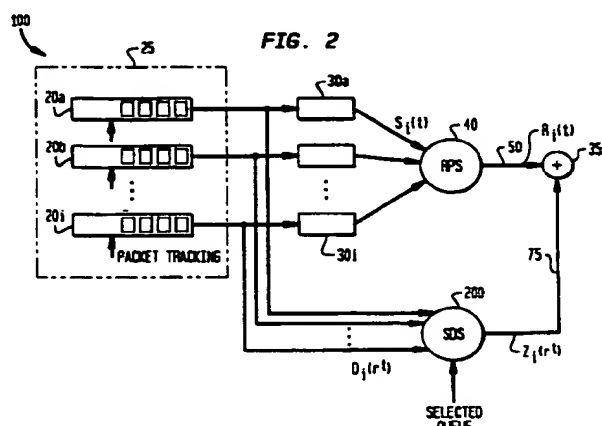
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### (54) Fair queuing system with adaptive bandwidth redistribution

(57) Apparatus for routing packets in a communication network comprises a plurality (100) of per-connection queues (20a-20i), each queue established for receiving packets from a respective source and temporarily storing received packets before routing to a particular destination; a weighted fair-queuing scheduler (40) for servicing packets from each of the plurality of per-connection queues at guaranteed pre-allocated rates; a sensing device for sensing a presence or absence of packets in queues, the absence of packets in queues indicating availability of excess bandwidth; and, a state dependent scheduler (200) for redistributing excess bandwidth upon sensing of queues absent packets, the state dependent scheduler (200) servicing those queues in accordance with a state variable corresponding to a performance property of the queues, wherein delay and isolation properties for routing packets of respective queues in weighted fair-queuing is preserved.





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# EUROPEAN SEARCH REPORT

Application Number  
EP 98 30 0754

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
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A	CLARK D D ET AL: "Supporting Real-Time Applications in an Integrated Services Packet Network: Architecture and Mechanism" PROCEEDINGS OF ACM SIGCOMM '92 CONFERENCE, vol. 22, no. 4, 17 - 20 August 1992, pages 14-26, XP002105398 BALTIMORE (US) * page 21, left-hand column, line 27 - page 25, left-hand column, line 63 *	1-6	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			H04L H04Q
The present search report has been drawn up for all claims			
Place of search <b>THE HAGUE</b>		Date of completion of the search <b>9 June 1999</b>	Examiner <b>Eraso Helguera, J</b>
CATEGORY OF CITED DOCUMENTS			
<p>X : particularly relevant if taken alone  Y : particularly relevant if combined with another document of the same category  A : technological background  O : non-written disclosure  P : intermediate document</p> <p>T : theory or principle underlying the invention  E : earlier patent document, but published on, or after the filing date  D : document cited in the application  L : document cited for other reasons  &amp; : member of the same patent family, corresponding document</p>			

EPO FORM 1503 03/92 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT  
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EP 98 30 0754

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